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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/688,148	10/17/2003	Daniel G. Gelb	200310011-1	9227

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HEWLETT PACKARD COMPANY  
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INTELLECTUAL PROPERTY ADMINISTRATION  
FORT COLLINS, CO 80527-2400

EXAMINER
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THOMASSON, MEAGAN J

ART UNIT	PAPER NUMBER
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3714

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/28/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/688,148	<b>Applicant(s)</b> GELB ET AL.	
	<b>Examiner</b> Meagan Thomasson	<b>Art Unit</b> 3714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 03 October 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) 3, 16 and 29 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4-15, 17-28 and 30-38 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Amendment***

The examiner acknowledges the amendments made to claims 1,7,10,11,21,27,33 and 36. Claims 37 and 38 have been added, and claims 3,16 and 29 have been canceled.

### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

**Claims 1-38 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-42 of U.S. Patent No. 6,853,398 (Malzbender et al.) in view of "The Visual Hull Concept for Silhouette-**

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**Based Image Understanding” (Laurentini, IEEE Transactions on Pattern Analysis and Machine Intelligence. February 2, 1994.), herein referred to as Laurentini.**

An obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but an examined application claim is not patentably distinct from the reference claim(s) because the examined claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*. Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 1-36 falls within the scope of the method and system for real-time video communication within a virtual environment recited in claims 1-42 of U.S. Patent No. 6,853,398. That is, claims 1-32 are obvious over claims 1-42 of U.S. Patent No. 6,853,398. Specifically, since a gaming environment are a species of the generic category defined by “virtual environment,” the system and method of claims 1-36 reciting a “gaming environment” is obvious over claims 1-42 of U.S. Patent No. 6,853,398 reciting a “virtual environment.”

Further, the amendments made to claims 1, 11, 21 and 27 to include the limitation of “said new view synthesis technique comprises an image-based visual hull technique that comprises approximating a visual hull of said local participant by projecting contours associated with said local participant into three-dimensional space and computing an intersection of resulting frusta” does not render the instant application new, novel, or unobvious over U.S. Patent No. 6,853,398 in view of Laurentini. Independent claim 1 of U.S. Patent No. 6,853,398 discloses applying a new view synthesis technique to a plurality of reel-time video streams but does not specifically

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disclose the details of said new view synthesis technique utilized, rendering claim 1 of U.S. Patent No. 6,853,398 encompassing of the new view synthesis technique comprising an image-based visual hull technique, as disclosed in claims 1, 11, 21 and 27 of the instant application. Additionally, Laurentini discloses said image-based visual hull technique for identifying or reconstructing 3-D objects when 2-D images are available, and teaches that this technique has applications to understanding the content of a 3-D scene, specifically with regard to navigation, manipulation and visual recognition (Introduction, first paragraph).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of U.S. Patent No. 6,853,398 (Malzbender et al.) and Laurentini as they are analogous inventions. Specifically, the inventions disclosed by both Malzbender and Laurentini serve as methods for viewing an image from multiple viewpoints and projecting said image into a 3-D environment.

### ***Response to Arguments***

Applicant's arguments filed October 3, 2006 have been fully considered but they are not persuasive.

Specifically, the amendments to the claims did not render the instant application un-obvious over U.S. Patent No. 6,853,398 (Malzbender et al.) in view of "The Visual Hull Concept for Silhouette-Based Image Understanding" (Laurentini, A., IEEE Transactions on Pattern Analysis and Machine Intelligence. February 2, 1994.), herein referred to as Laurentini. The new view synthesis technique disclosed by Malzbender

does not specifically disclose the limitation of an image-based visual hull technique, however it does encompass this limitation. Further, Laurentini discloses said image-based visual hull technique for identifying or reconstructing 3-D objects when 2-D images are available, and teaches that this technique has applications to understanding the content of a 3-D scene, specifically with regard to navigation, manipulation and visual recognition. See above rejection for further explanation.

Applicant's arguments, see p. 13 "Statement of Common Ownership", filed October 3, 2006 with respect to claim 20 have been fully considered and are persuasive. The 35 U.S.C. 103(a) rejection of claim 20 has been withdrawn. The inventions were commonly owned at the time of the invention, disqualifying Malzbender as prior art under 35 U.S.C. 103(c).

Applicant's arguments, see p. 14 "102 Rejections", filed October 3, 2006, with respect to claims 1-2,4-15,17-19,21-28 and 30-36 have been fully considered and are persuasive. The 35 U.S.C. 102(e) rejection of claims 1-2,4-15,17-19,21-28 and 30-36 has been withdrawn, as Malzbender does not specifically disclose that "said new view synthesis technique comprises an image-based visual hull technique that comprises approximating a visual hull of said local participant by projecting contours associated with said local participant into three-dimensional space and computing an intersection of resulting frusta" as recited in independent claims 1, 11, 21 and 27.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Meagan Thomasson whose telephone number is (571) 272-2080. The examiner can normally be reached on M-F 830-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Pezzuto can be reached on (571) 272-6788. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Robert E. Pezzuto  
Supervisory Patent Examiner  
Art Unit 3714

Meagan Thomasson  
March 23, 2007